UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
RICHARDSON, THOMAS W

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>01 June 2010</u>.
2a) ☐ This action is **FINAL**.　　2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>34-45</u> is/are pending in the application.
　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>34-45</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
　　a) ☐ All　b) ☐ Some * c) ☐ None of:
　　　1. ☐ Certified copies of the priority documents have been received.
　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.
　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　application from the International Bureau (PCT Rule 17.2(a)).
　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 34-45 are pending for examination.

Claims 1-24 are cancelled.

Claims 25-33 are withdrawn due to restriction.

Claims 34, 40, and 42 are amended.

Claims 34-45 are rejected.

Response to Arguments

1.   Applicant's arguments with respect to claims 34, 40, and 42 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3.   Claims 34-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0049839, Miida, US 7 126 716, Kaufman et al, and US 7 715 039, Zimmerman.

4.   As per claim 34, Miida teaches a system for interfacing peripheral hardware devices with a controller comprising:

        a services layer comprised of instruction sets for performing tasks (paragraphs 143 and 148, where the operational programs are stored in a memory such that they cause the CPU to perform tasks associated with the method);

        a common device model agent (CDMA) comprised of:

a device independent services environment for executing software to perform
services on a peripheral hardware device (paragraph 338, where any number of devices
may utilize the method as described);

a device model agent (DMA) software within a device which enables a user to
select services to be run on peripheral hardware devices and also provides security
(paragraph 184, where the control unit collaborates with the collecting control unit to
retrieve device information, also paragraph 8, where the system may securely inform
users of information), the DMA comprised of:

a service manager which loads software to be executed, maintains lists of
currently installed services, and manages the lifecycle of services, wherein
lifecycle includes add, delete, modify, customize, synchronize, and register
software services (paragraphs 184-185, where the control unit of the central
server maintains device lists and selects a suggestion file based on usage
statistics and status information. Status information for a device that is
maintained serves as a registration for the device, as the status of the device is
updates with the server); and,

a common provider applications programming interface (API) which
communicates device configurations, device status, and supply levels between
the peripheral hardware devices and Service Manager (paragraph 184, where
the control unit collaborates with the collecting control unit to retrieve device
information, also paragraph 144, where the information is retrieved from the
transmission devices local to the hardware utility),

at least one provider application programming interface (API) to provide the software specific functions, procedures and methods (paragraph 147, provider); and,

at least one peripheral hardware device which performs functions in response to the execution of the software (paragraphs 165-167, where the transmission device receives status information from the device and sends it to the control center upon request).

Miida does not expressly teach that the software is run on peripheral devices to perform product enhancements. Kaufman teaches a printing system comprising:

a services layer comprised of instruction sets for performing at least one of the tasks of performing break-fix repairs, self-help problem solving, performing product enhancements and performing product integration (column 7, lines 14-19, where the settings may be viewed and modified utilizing a format such as XML, also column 8, line 13-19, where the user may download software updates to the device);

a common device model agent (CDMA) comprised of: a device independent services environment for executing software to perform at least one of the services of automated meter reads, productivity reporting, software download, assisted user self-help, remote diagnostics, and prognostics at run time on a peripheral hardware device (column 7, lines 14-19, where the settings may be viewed and modified utilizing a format such as XML, also column 8, line 13-19, where the user may download software updates to the device);

a device model agent (DMA) software written in a platform independent language and embedded within a device which enables a user to select services to be run on

peripheral hardware devices (column 5, line 61 to column 6, lines 8, where the printer may run a web server that may provide data to the user over HTML, where the user may process and display the information on a plurality of devices);

at least one provider application programming interface (API) to provide the software specific functions, procedures and methods (column 7, lines 14-19, where the settings may be viewed and modified utilizing a format such as XML, also column 8, line 13-19, where the user may download software updates to the device); and,

at least one peripheral hardware device which performs functions in response to the execution of the software (column 7, lines 14-19, where the settings may be viewed and modified utilizing a format such as XML, also column 8, line 13-19, where the user may download software updates to the device).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a printer updating scheme such as taught by Kaufman in a printer information system such as taught by Miida. Miida's system generally allows a device to send information representing the status of a printing device, and the recipient can then make suggestions regarding performance of the printing device. Kaufman's system allows a manager to update software and make other performance upgrades through a network. Miida's system would benefit from this, as the suggestions regarding performance of the printing device may go further than hardware life-cycle information (Miida, abstract) and also include software life-cycle information, which may be updated regularly by the manufacturer (Kaufman, column 8, lines 19-21).

Neither Miida nor Kaufman expressly teaches that the device software may initiate

service upgrades. Zimmerman teaches a printer formatter comprising:

at least one peripheral device which performs functions in response to execution

of software, including initiating additions of service upgrades for maintenance thereof

(column 9, lines 30-43, where the upgrade module may automatically and dynamically

upgrade software if a more recent version is detected).

It would have been obvious to one of ordinary skill in the art at the time of the invention

to utilize an upgrade such as taught by Zimmerman in a system such as that taught by

Miida. Miida's system generally allows a device to send information representing the

status of a printing device, including suggestions for updating the device without

replacing it (paragraph 6). An automatic update module such as taught by Zimmerman

would benefit such a system, as the software associated with the printing device may be

upgraded dynamically without user intervention (column 9, lines 37-38).

5.   As per claim 35, Miida further teaches a common information model application

programming interface (CIMAPI) that visually represents commonly used data and

application methods (paragraph 156, also Figs. 9 and 15-17 and associated description,

where a web page may be displayed to inform individuals of information from the central

server).

6.   As per claim 36, Miida further teaches a common interface model object

manager (CIMOM) (paragraph 156, also Figs. 9 and 15-17 and associated description,

where a web page may be displayed to inform individuals of information from the central

server, also paragraphs 184-185, where the control unit of the central server maintains

device lists and selects a suggestion file based on usage statistics and status
information).

7.   As per claim 37, Miida further teaches the instruction sets for performing tasks
includes printing (paragraph 250, where services may be related to a printer).

8.   As per claim 38, Miida further teaches the instruction sets for performing a task
includes instruction sets for a remote monitoring service (paragraph 186, where the
status information of a device is analyzed at the control center, remote from the printing
devices).

9.   As per claim 39, Miida further teaches the instruction sets include instruction sets
for supplies replenishment (paragraph 186, where the status information of a device is
analyzed such that a suggestion may be made for supplies to be ordered or changed,
as in paragraph 274).

10.   As per claim 40, Miida teaches a system for interfacing peripheral hardware
devices with a controller comprising:

        a services layer comprised of instruction sets for performing tasks (paragraphs
143 and 148, where the operational programs are stored in a memory such that they
cause the CPU to perform tasks associated with the method);

        a common device model agent (CDMA) comprised of:

        a device independent services environment for executing software to perform
services on a peripheral hardware device (paragraph 338, where any number of devices
may utilize the method as described);

a common information model application programming interface (CIMAPI) that visually represents through the use of a visual display medium commonly used data and application methods (paragraph 156, also Figs. 9 and 15-17 and associated description, where a web page may be displayed to inform individuals of information from the central server);

a device model agent (DMA) software within a device which enables a user to select services to be run on peripheral hardware devices and also provides security (paragraph 184, where the control unit collaborates with the collecting control unit to retrieve device information, also paragraph 8, where the system may securely inform users of information), the DMA comprised of:

a common interface model object manager (CIMOM) (paragraph 156, also Figs. 9 and 15-17 and associated description, where a web page may be displayed to inform individuals of information from the central server); and,

a service manager which loads software to be executed, maintains lists of currently installed services, and manages the lifecycle of services, wherein lifecycle includes add, delete, modify, customize, synchronize, and register software services (paragraph 186, where the status information of a device is analyzed such that a suggestion may be made for supplies to be ordered or changed, as in paragraph 274); and,

a common provider applications programming interface (API) which communicates device configurations, device status, and supply levels between the peripheral hardware devices and both the CIMOM and Service Manager (paragraphs

184-185, where the control unit of the central server maintains device lists and selects a

suggestion file based on usage statistics and status information. Status information for a

device that is maintained serves as a registration for the device, as the status of the

device is updates with the server),

at least one provider application programming interface (API) to provide the

software specific functions, procedures and methods (paragraph 147, provider); and,

at least one peripheral hardware device which performs functions in response to

the execution of the software (paragraphs 165-167, where the transmission device

receives status information from the device and sends it to the control center upon

request).

Miida does not expressly teach that the software is run on peripheral devices to perform

product enhancements. Kaufman teaches a printing system comprising:

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tasks of performing break-fix repairs, self-help problem solving, performing product

enhancements and performing product integration (column 7, lines 14-19, where the

settings may be viewed and modified utilizing a format such as XML, also column 8, line

13-19, where the user may download software updates to the device);

a common device model agent (CDMA) comprised of: a device independent

services environment for executing software to perform at least one of the services of

automated meter reads, productivity reporting, software download, assisted user self-

help, remote diagnostics, and prognostics at run time on a peripheral hardware device

(column 7, lines 14-19, where the settings may be viewed and modified utilizing a

format such as XML, also column 8, line 13-19, where the user may download software
updates to the device);

a device model agent (DMA) software written in a platform independent language
and embedded within a device which enables a user to select services to be run on
peripheral hardware devices (column 5, line 61 to column 6, lines 8, where the printer
may run a web server that may provide data to the user over HTML, where the user
may process and display the information on a plurality of devices);

at least one provider application programming interface (API) to provide the
software specific functions, procedures and methods (column 7, lines 14-19, where the
settings may be viewed and modified utilizing a format such as XML, also column 8, line
13-19, where the user may download software updates to the device); and,

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It would have been obvious to one of ordinary skill in the art at the time of the invention
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manager to update software and make other performance upgrades through a network.
Miida's system would benefit from this, as the suggestions regarding performance of the

printing device may go further than hardware life-cycle information (Miida, abstract) and also include software life-cycle information, which may be updated regularly by the manufacturer (Kaufman, column 8, lines 19-21).

Neither Miida nor Kaufman expressly teaches that the device software may initiate service upgrades. Zimmerman teaches a printer formatter comprising:

at least one peripheral device which performs functions in response to execution of software, including initiating additions of service upgrades for maintenance thereof (column 9, lines 30-43, where the upgrade module may automatically and dynamically upgrade software if a more recent version is detected).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize an upgrade such as taught by Zimmerman in a system such as that taught by Miida. Miida's system generally allows a device to send information representing the status of a printing device, including suggestions for updating the device without replacing it (paragraph 6). An automatic update module such as taught by Zimmerman would benefit such a system, as the software associated with the printing device may be upgraded dynamically without user intervention (column 9, lines 37-38).

11.   As per claim 41, Miida further teaches the instruction sets for performing tasks includes instruction sets for printing (paragraph 250, where services may be related to a printer).

12.   Claims 42-45 are substantially the same as claims 34-37, directed toward a method rather than a system. Miida teaches a method as well as a system (title). Claims 42-45 are therefore rejected under the same basis as claims 34-37.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS RICHARDSON whose telephone number is (571) 270-1191. The examiner can normally be reached on Monday through Thursday, 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TR
/William C. Vaughn, Jr./
Supervisory Patent Examiner, Art Unit 2444